

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/516,079

Source: PCT

Date Processed by STIC: 12-7-04

ENTERED



PCT

RAW SEQUENCE LISTING DATE: 12/07/2004
 PATENT APPLICATION: US/10/516,079 TIME: 10:59:43

Input Set : A:\transmolecular5006wo.txt
 Output Set: N:\CRF4\12072004\J516079.raw

3 <110> APPLICANT: ALVAREZ, Vernon L.
 4 GRIMES, Carol A.
 5 GONDA, Matthew A.
 7 <120> TITLE OF INVENTION: Combination chemotherapy with chlorotoxin
 9 <130> FILE REFERENCE: 51530-5006-WO
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/516,079
 C--> 11 <141> CURRENT FILING DATE: 2004-11-29
 11 <150> PRIOR APPLICATION NUMBER: US 60/406,033
 12 <151> PRIOR FILING DATE: 2002-08-27
 14 <150> PRIOR APPLICATION NUMBER: US 60/384,171
 15 <151> PRIOR FILING DATE: 2002-05-31
 17 <160> NUMBER OF SEQ ID NOS: 95
 19 <170> SOFTWARE: PatentIn version 3.2
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 36
 23 <212> TYPE: PRT
 24 <213> ORGANISM: Leiurus quinquestriatus
 27 <220> FEATURE:
 28 <221> NAME/KEY: misc_feature
 29 <223> OTHER INFORMATION: Chlorotoxin
 31 <400> SEQUENCE: 1
 33 Met Cys Met Pro Cys Phe Thr Thr Asp His Gln Met Ala Arg Lys Cys
 34 1 5 10 15
 37 Asp Asp Cys Cys Gly Gly Lys Gly Arg Gly Lys Cys Tyr Gly Pro Gln
 38 20 25 30
 41 Cys Leu Cys Arg
 42 35
 45 <210> SEQ ID NO: 2
 46 <211> LENGTH: 42
 47 <212> TYPE: PRT
 48 <213> ORGANISM: Leiurus quinquestriatus
 50 <400> SEQUENCE: 2
 52 His His His His His His Met Cys Met Pro Cys Phe Thr Thr Asp His
 53 1 5 10 15
 56 Gln Met Ala Arg Lys Cys Asp Asp Cys Cys Gly Gly Lys Gly Arg Gly
 57 20 25 30
 60 Lys Cys Tyr Gly Pro Gln Cys Leu Cys Arg
 61 35 40
 64 <210> SEQ ID NO: 3
 65 <211> LENGTH: 37
 66 <212> TYPE: PRT
 67 <213> ORGANISM: Leiurus quinquestriatus
 69 <400> SEQUENCE: 3

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71 Tyr Met Cys Met Pro Cys Phe Thr Thr Asp His Gln Met Ala Arg Lys
72 1          5          10          15
75 Cys Asp Asp Cys Cys Gly Gly Lys Gly Arg Gly Lys Cys Tyr Gly Pro
76          20          25          30
79 Gln Cys Leu Cys Arg
80          35
83 <210> SEQ ID NO: 4
84 <211> LENGTH: 39
85 <212> TYPE: PRT
86 <213> ORGANISM: Leiurus quinquestriatus
88 <400> SEQUENCE: 4
90 Tyr Ser Tyr Met Cys Met Pro Cys Phe Thr Thr Asp His Gln Met Ala
91 1          5          10          15
94 Arg Lys Cys Asp Asp Cys Cys Gly Gly Lys Gly Arg Gly Lys Cys Tyr
95          20          25          30
98 Gly Pro Gln Cys Leu Cys Arg
99          35
102 <210> SEQ ID NO: 5
103 <211> LENGTH: 36
104 <212> TYPE: PRT
105 <213> ORGANISM: Artificial sequence
107 <220> FEATURE:
108 <223> OTHER INFORMATION: Chlorotoxin variant
110 <400> SEQUENCE: 5
112 Met Cys Met Pro Cys Phe Thr Thr Asp His Gln Met Ala Arg Lys Cys
113 1          5          10          15
116 Asp Asp Cys Cys Gly Gly Lys Gly Arg Gly Lys Cys Phe Gly Pro Gln
117          20          25          30
120 Cys Leu Cys Arg
121          35
124 <210> SEQ ID NO: 6
125 <211> LENGTH: 35
126 <212> TYPE: PRT
127 <213> ORGANISM: Artificial sequence
129 <220> FEATURE:
130 <223> OTHER INFORMATION: Chlorotoxin variant
132 <400> SEQUENCE: 6
134 Arg Cys Lys Pro Cys Phe Thr Thr Asp Pro Gln Met Ser Lys Lys Cys
135 1          5          10          15
138 Ala Asp Cys Cys Gly Gly Lys Gly Lys Gly Lys Cys Tyr Gly Pro Gln
139          20          25          30
142 Cys Leu Cys
143          35
146 <210> SEQ ID NO: 7
147 <211> LENGTH: 38
148 <212> TYPE: PRT
149 <213> ORGANISM: Artificial sequence
151 <220> FEATURE:
152 <223> OTHER INFORMATION: Chlorotoxin variant

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154 <400> SEQUENCE: 7
156 Arg Cys Ser Pro Cys Phe Thr Thr Asp Gln Gln Met Thr Lys Lys Cys
157 1 5 10 15
160 Tyr Asp Cys Cys Gly Gly Lys Gly Lys Gly Lys Cys Tyr Gly Pro Gln
161 20 25 30
164 Cys Ile Cys Ala Pro Tyr
165 35
168 <210> SEQ ID NO: 8
169 <211> LENGTH: 7
170 <212> TYPE: PRT
171 <213> ORGANISM: Leiurus quinquestriatus
174 <220> FEATURE:
175 <221> NAME/KEY: misc_feature
176 <223> OTHER INFORMATION: Derivative of Chlorotoxin: amino acid residues 23-29
178 <400> SEQUENCE: 8
180 Lys Gly Arg Gly Lys Ser Tyr
181 1 5
184 <210> SEQ ID NO: 9
185 <211> LENGTH: 7
186 <212> TYPE: PRT
187 <213> ORGANISM: Leiurus quinquestriatus
190 <220> FEATURE:
191 <221> NAME/KEY: misc_feature
192 <223> OTHER INFORMATION: Derivative of Chlorotoxin: amino acid residues 8-14
194 <400> SEQUENCE: 9
196 Thr Asp His Gln Met Ala Arg
197 1 5
200 <210> SEQ ID NO: 10
201 <211> LENGTH: 9
202 <212> TYPE: PRT
203 <213> ORGANISM: Artificial sequence
205 <220> FEATURE:
206 <223> OTHER INFORMATION: Chlorotoxin alpha peptide
208 <400> SEQUENCE: 10
210 Thr Asp His Gln Met Ala Arg Lys Ser
211 1 5
214 <210> SEQ ID NO: 11
215 <211> LENGTH: 9
216 <212> TYPE: PRT
217 <213> ORGANISM: Artificial sequence
219 <220> FEATURE:
220 <223> OTHER INFORMATION: Variant of chlorotoxin alpha peptide
222 <400> SEQUENCE: 11
224 Thr Ala His Ala Met Ala Arg Lys Ser
225 1 5
228 <210> SEQ ID NO: 12
229 <211> LENGTH: 36
230 <212> TYPE: PRT
231 <213> ORGANISM: Artificial sequence

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233 <220> FEATURE:
234 <223> OTHER INFORMATION: Variant peptide of chlorotoxin
236 <400> SEQUENCE: 12
238 Met Cys Met Pro Cys Phe Thr Thr Ala His Ala Met Ala Arg Lys Cys
239 1          5          10          15
242 Asp Asp Cys Cys Gly Gly Lys Gly Arg Cys Lys Cys Tyr Gly Pro Gln
243          20          25          30
246 Cys Leu Cys Arg
247          35
250 <210> SEQ ID NO: 13
251 <211> LENGTH: 9
252 <212> TYPE: PRT
253 <213> ORGANISM: Artificial
255 <220> FEATURE:
256 <223> OTHER INFORMATION: motif for chlorotoxin derivatives
259 <220> FEATURE:
260 <221> NAME/KEY: MISC_FEATURE
261 <222> LOCATION: (1)..(9)
262 <223> OTHER INFORMATION: Xaa at position 3 = Asn or Glu; Xaa at position 4 = Ala,
Arg,
263      Asn, Asp, Cys, Gln, Glu, Gly, His, Ile, Leu, Lys, Met, Phe, Ser,
264      Thr, Trp, Tyr or Val; Xaa at position 5 = Asn or Gln; Xaa at
265      position 7 = Ser or Thr; Xaa at position 8 = His, Lys or Arg.
267 <400> SEQUENCE: 13
W--> 269 Thr Thr Xaa Xaa Xaa Met Xaa Xaa Lys
270 1          5
273 <210> SEQ ID NO: 14
274 <211> LENGTH: 9
275 <212> TYPE: PRT
276 <213> ORGANISM: Leiurus quinquestriatus
278 <400> SEQUENCE: 14
280 Thr Thr Asp His Gln Met Ala Arg Lys
281 1          5
284 <210> SEQ ID NO: 15
285 <211> LENGTH: 35
286 <212> TYPE: PRT
287 <213> ORGANISM: Mesobuthus tamulus
289 <400> SEQUENCE: 15
291 Arg Cys Lys Pro Cys Phe Thr Thr Asp Pro Gln Met Ser Lys Lys Cys
292 1          5          10          15
295 Ala Asp Cys Cys Gly Gly Lys Gly Lys Gly Lys Cys Tyr Gly Pro Gln
296          20          25          30
299 Cys Leu Cys
300          35
303 <210> SEQ ID NO: 16
304 <211> LENGTH: 34
305 <212> TYPE: PRT
306 <213> ORGANISM: Artificial sequence
308 <220> FEATURE:
309 <223> OTHER INFORMATION: Small Toxin consensus sequence

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312 <220> FEATURE:
313 <221> NAME/KEY: MISC_FEATURE
314 <222> LOCATION: (2)..(2)
315 <223> OTHER INFORMATION: Xaa can be Met or Lys
317 <220> FEATURE:
318 <221> NAME/KEY: MISC_FEATURE
319 <222> LOCATION: (9)..(9)
320 <223> OTHER INFORMATION: Xaa can be His or Pro
322 <220> FEATURE:
323 <221> NAME/KEY: MISC_FEATURE
324 <222> LOCATION: (16)..(16)
325 <223> OTHER INFORMATION: Xaa can be Asp or Ala
327 <400> SEQUENCE: 16
W--> 329 Cys Xaa Pro Cys Phe Thr Thr Asp Xaa Gln Met Ala Lys Lys Cys Xaa
330 1 5 10 15
333 Asp Cys Cys Gly Gly Lys Gly Lys Gly Lys Cys Tyr Gly Pro Gln Cys
334 20 25 30
337 Leu Cys
341 <210> SEQ ID NO: 17
342 <211> LENGTH: 38
343 <212> TYPE: PRT
344 <213> ORGANISM: Leiurus quinquestriatus
346 <400> SEQUENCE: 17
348 Arg Cys Ser Pro Cys Phe Thr Thr Asp Gln Gln Met Thr Lys Lys Cys
349 1 5 10 15
352 Tyr Asp Cys Cys Gly Gly Lys Gly Lys Gly Lys Cys Tyr Gly Pro Gln
353 20 25 30
356 Cys Ile Cys Ala Pro Tyr
357 35
360 <210> SEQ ID NO: 18
361 <211> LENGTH: 34
362 <212> TYPE: PRT
363 <213> ORGANISM: Artificial sequence
365 <220> FEATURE:
366 <223> OTHER INFORMATION: Probable Toxin LQH 8/6 consensus sequence
369 <220> FEATURE:
370 <221> NAME/KEY: MISC_FEATURE
371 <222> LOCATION: (2)..(2)
372 <223> OTHER INFORMATION: Xaa can be Met or Ser
374 <220> FEATURE:
375 <221> NAME/KEY: MISC_FEATURE
376 <222> LOCATION: (9)..(9)
377 <223> OTHER INFORMATION: Xaa can be His or Gln
379 <220> FEATURE:
380 <221> NAME/KEY: MISC_FEATURE
381 <222> LOCATION: (12)..(12)
382 <223> OTHER INFORMATION: Xaa can be Ala or Thr
384 <220> FEATURE:
385 <221> NAME/KEY: MISC_FEATURE

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/516,079

DATE: 12/07/2004
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Input Set : A:\transmolecular5006wo.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:13; Xaa Pos. 3,4,5,7,8 ✓
Seq#:16; Xaa Pos. 2,9,16 ✓
Seq#:18; Xaa Pos. 2,9,17,16 ✓
Seq#:19; Xaa Pos. 48,49 ✓
Seq#:20; Xaa Pos. 2,9,16,22,24,25
Seq#:22; Xaa Pos. 2,9,16,22,25,26,27,28,29,30,31
Seq#:23; Xaa Pos. 23,26
Seq#:24; Xaa Pos. 10,14,17,23,26
Seq#:26; Xaa Pos. 10,14,17,23,24,26,27,28,29,30,31,32
Seq#:27; Xaa Pos. 23,24
Seq#:28; Xaa Pos. 9,10,11,14,15,17,18,21,23,24
Seq#:30; Xaa Pos. 9,10,11,14,15,17,18,21,26,27,28,29,30,31,32
Seq#:31; Xaa Pos. 25,26
Seq#:32; Xaa Pos. 10,17,23,25,26
Seq#:34; Xaa Pos. 10,17,23,26,27,28,29,30,31,32
Seq#:35; Xaa Pos. 22,23
Seq#:36; Xaa Pos. 2,9,10,11,12,13,16,17,22,23,28
Seq#:38; Xaa Pos. 2,9,10,11,12,13,16,17,25,26,27,28,29,30,31
Seq#:39; Xaa Pos. 25,26
Seq#:40; Xaa Pos. 3,10,17
Seq#:45; Xaa Pos. 4
Seq#:46; Xaa Pos. 4
Seq#:49; Xaa Pos. 4,5
Seq#:51; Xaa Pos. 3
Seq#:52; Xaa Pos. 2
Seq#:54; Xaa Pos. 4
Seq#:55; Xaa Pos. 4
Seq#:57; Xaa Pos. 10
Seq#:59; Xaa Pos. 4,5
Seq#:63; Xaa Pos. 4
Seq#:65; Xaa Pos. 4,7
Seq#:67; Xaa Pos. 4
Seq#:69; Xaa Pos. 4,8
Seq#:71; Xaa Pos. 3,4,5,8,9
Seq#:73; Xaa Pos. 4
Seq#:75; Xaa Pos. 4,5,6,7,8

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:13

VERIFICATION SUMMARY

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Input Set : A:\transmolecular5006wo.txt

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L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:269 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:424 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:32
L:428 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:48
L:468 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:472 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:16
L:569 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:573 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:16
L:594 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:16
L:633 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:637 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:16
L:730 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:734 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:16
L:759 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:16
L:823 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:827 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:16
L:940 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:944 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:16
L:969 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:16
L:1008 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:1012 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:16
L:1100 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:1104 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:16
L:1129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:16
L:1198 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:1202 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:16
L:1315 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
L:1319 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:16
L:1343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:16
L:1377 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0
L:1381 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:16
L:1469 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0
L:1489 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
L:1537 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0
L:1571 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0
L:1591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:0
L:1625 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:0
L:1645 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:0
L:1679 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:0
L:1713 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0
L:1775 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0
L:1814 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:0
L:1848 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:0
L:1887 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:0
L:1941 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:0

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L:1975 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73 after pos.:0

L:2029 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:0